



Workplace Health and Safety Queensland

State-wide Campaign – 2007 Mobile and Tower Cranes

Between July and October 2007 Workplace Health and Safety Queensland (WHSQ) undertook a state-wide audit on mobile and tower cranes. This formed part of a re-visit to this industry following a major intervention in 2005 and an annual inspection of competent persons audit in 2006.

The 2007 campaign included 70 inspectorial visits on cranes, primarily when these cranes were set up for use. Both mobile and tower cranes were included in these visits with approximately 80 per cent of visits auditing mobile cranes – as these make up a much larger proportion of the total crane numbers. The campaign included audits of crane maintenance and safety inspection documentation.

What were the results of the campaign?

A total of 118 non-compliance issues were found, with 51 Improvement Notices and 37 Prohibition Notices being issued¹. 10 cranes were completely prohibited from operation until key safety issues were remedied. Of this number four cranes were prohibited from use due to very poor condition, with a requirement for major 10 year inspections to be undertaken (unless the cranes were removed from service).

A breakdown of the major categories of non-compliances, as percentages, is shown below:

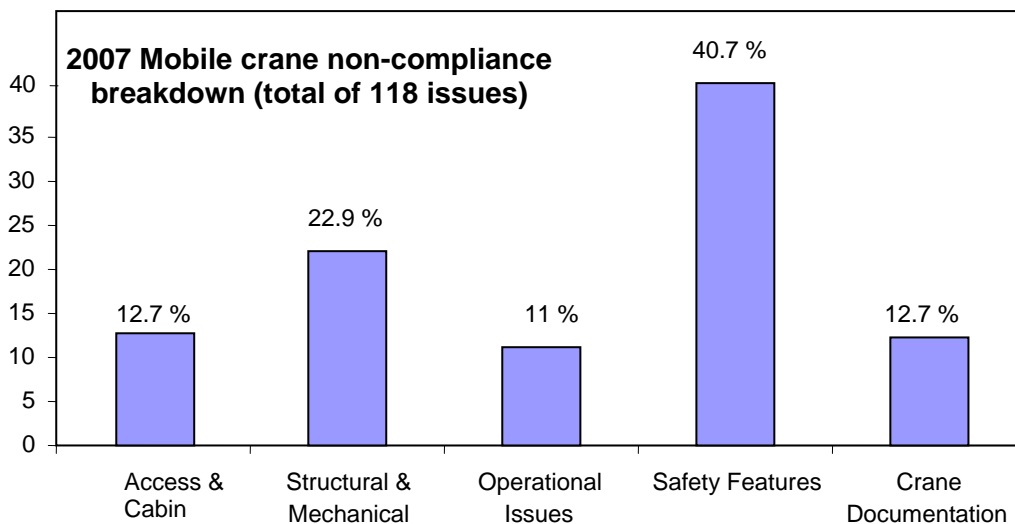


Diagram 1

¹ Multiple non-compliance issues and notices often applied to one crane.

Diagram 1 shows safety features as the primary area of non-compliance at 40.7 per cent of the total. Crane safety features include rated capacity limiters, load indicators, hoist limits, and operator controls. The structural and mechanical condition of some cranes is also a concern and makes up approximately 23 per cent of the non-compliance total.

One point not clearly discernable from the results is that there are a large number of relatively new cranes in Queensland. The significant number of non-compliances highlighted in the 2007 campaign did not apply to the newer cranes, but rather to the older cranes in the industry that now require high levels of maintenance.

The quality of annual inspection documentation has improved since 2006 with a greater understanding of manufacturer's information, the Mobile and Tower Crane Codes of Practice 2006 and Australian Standards. Information provided by WHSQ to persons carrying out annual inspections in 2006 appears to have assisted in the improvement of the quality of inspection documentation in 2007. In a few cases, persons carrying out annual safety inspections still demonstrate a limited understanding of the parameters of the annual inspection. This was illustrated in the cases where four cranes were prohibited from use due to an obvious and extensive lack of safety.

Operator Survey

A crane operator survey (questionnaire attached), similar to those completed in the 2005 campaign, was carried out. A total of 54 questionnaires were completed. Of the crane operators surveyed:

- 60 per cent consider that lack of crane operator skill level is a primary cause of crane incidents.
- 24 per cent consider that crane customer issues, such as pressure applied by the customer and a poor understanding of crane operation, are a primary cause of crane incidents.
- 41 per cent are unaware of the Mobile and Tower Crane Codes of Practice. Only 27 per cent of operators have a copy of one of the Codes.

Where to from here?

The findings of the campaign show that crane safety features and crane condition remain as areas of concern in the Queensland mobile and tower crane industries. There has been an improvement in the quality of documentation relating to safety issues but there is room for further improvement on general safety issues

There is an ongoing need for maintenance and safety inspections of mobile and tower cranes - particularly for older cranes. The requirement for major 10 year inspections in the *Workplace Health and Safety Regulation 1997*, with oversight by a professional engineer, is considered to be an important factor in helping to maintain a safety benchmark for mobile and tower cranes in Queensland. An intervention on the 10 year inspection issue will be undertaken by WHSQ in 2008.

The issue of competency levels of certificate holders has been identified and is currently part of a National review. In addition, the need for familiarisation and refresher training for crane operators is highlighted in the 2006 Mobile and Tower Crane Codes of Practice. The operator's questionnaire indicates there is a need for operators' training on the requirements set out in the Mobile and Tower Crane Codes of Practice.

As with any research, these findings only represent the results found at the time the workplace visits took place and are only relevant to the industries visited.

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